

School Education Program offered by the City of Newton's Department of Public Works

The mission of these educational programs are: to provide a basic understanding of the City's stormwater drainage system, including where the rainwater drains and how this affects the natural water cycle; to raise awareness about the many sources of stormwater pollution; and to encourage everyone to take steps to reduce the pollutant loading on our beloved lakes, ponds, and brooks which feed into the Charles River.



Dwayne the Drain - "Dwayne" takes students through each season explaining how nature and humans affect the stormwater system. Using this MWRA story and activity book coupled with examples here in Newton, students learn where all the water goes when it rains (and it is not sent to a treatment plant!). The story is read aloud in the classroom, and then the books are distributed to the students, who work (individually) on the activities at the end of the book.
Recommended grade level: K to 3rd grades Time: 30 to 50 minutes, depending on length of time allotted for activities.

The **Water Cycle coupled with Build your own Watershed** – a 15 to 20-minute lesson on the water cycle covers the following key terms: precipitation, surface runoff, evaporation, transpiration, infiltration and watershed. Once these concepts are presented, students will be lead in a hands-on activity to build their own mini-watershed. Working in small groups they will create a landscape inside a plastic storage tub and then "rain" on their watershed using small spray bottles. Each group then records their observations on an activity sheet. The session ends with a classroom discussion.

Recommended grade level: 4th – 6th grades Time: 50 - 60 minutes

An advanced version of the **Water Cycle presentation** may also be coupled with a showing of "**After the Storm**", which was co-produced by The Weather Channel and the Environmental Protection Agency (EPA). The 23-minute video highlights three case studies where polluted stormwater runoff threatens watersheds highly valued for recreation, commercial fisheries, navigation and drinking water. Access to a VCR or DVD player and a television is needed.

Recommended grade level: 8th – 12th grade Time: 50 minutes total

Drinking Water Decisions – is about a hypothetical water emergency involving a shortage of water during a camping trip. After we read the story together, students will work together in pairs to figure out what to do with the resources available to them. The session ends with a classroom discussion.

Recommended grade level: 5th – 6th grade Time: 45 -50 minutes total

For Newton High School students – assistance with developing your **Environmental Service Project** for AP Biology will be available for a limited number of groups each school year.

For more information or to schedule a classroom visit, contact Maria Rose, Environmental Engineer at 617-796-1056 or mrose@newtonma.gov